U. S. Appl'n. No. 10/787,276

Reply under 37 CFR 1.116 - Expedited Procedure -Technology Center 2800

Amendment and Reply to Final Office Action dated July 3, 2006

Page 3

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method for removing defects from a semiconductor surface, comprising:

coating the semiconductor surface and the defects with a planar protective layer; thinning the planar protective layer to selectively reveal portions of the defects; removing the defects; and removing the planar protective layer.

- 2. (currently amended) The method of claim 1 wherein the planar protective layer uniformly covers the defects prior to the step of thinning.
- 3. (currently amended) The method of claim 1 wherein the planar protective layer is a photoresist layer.
- 4. (original) The method of claim 3 wherein the photoresist layer has a thickness from about 5 to about 10 microns.
- 5. (original) The method of claim 4 wherein the photoresist layer has a thickness of about 8 microns.

Claims 6-8 are cancelled without prejudice.

U. S. Appl'n. No. 10/787,276

Reply under <u>37 CFR 1.116</u> - Expedited Procedure -Technology Center 2800

Amendment and Reply to Final Office Action dated July 3, 2006

Page 4

- 9. (original) The method of claim 3, wherein said thinning is performed using an inductively coupled plasma (ICP) oxygen process.
- 10. (original) The method of claim 9, wherein the process has an etch rate of about 3000 Angstrom/ minute.
- 11. (original) The method of claim 3, wherein thinning is performed by reactive ion etching (RIE).
- 12. (original) The method of claim 3, wherein thinning is performed by electron cyclotron resonance (ECR).

Claims 13-17 are cancelled without prejudice.

- 18. (original) The method of claim 1, wherein removing of the defects is performed by etching.
- 19. (currently amended) The method of claim 1, wherein thinning the planar protective layer is performed by a process which is identical to a process for removing the planar protective layer.
- 20. (previously presented) The method of claim I, wherein the semiconductor surface comprises a semiconductor selected from a group consisting of GaSb, InAs, Si, InP, GaAs, InAs, and AlSb.

U. S. Appl'n. No. 10/787,276

Reply under 37 CFR 1.116 - Expedited Procedure -Technology Center 2800

Amendment and Reply to Final Office Action dated July 3, 2006

Page 5

- 21. (original) The method of claim 1, wherein the defects are removed using a wet chemical etchant.
- 22. (previously presented) The method of claim 21, wherein the defects are removed using a chemical etchant selected from the group consisting of citric acid, HCl, and acetic acid.
- 23. (previously presented) The method of claim 21, wherein the defects are removed using a chemical etchant selected from the group consisting of: i) a KOH (potassium hydroxide), water, isopropyl alcohol additive solution; ii) an ethylene diamine pyrocathecol, water, pyrazine additive solution; iii) a TMAH (tetramethyl ammonium hydroxide), water solution; and iv) a hydrazine (N2H4), water, isopropyl alcohol solution.

Claims 24-32 are cancelled without prejudice.